

ABSTRACT

An LSI chip includes a plurality of output terminals and a test circuit. The test circuit includes a single test signal input terminal, a single test signal output terminal, a shift register, and a plurality of switches. The shift register includes an input terminal, which is connected to the test signal input terminal, output bits of the shift register being equal to a number of the output terminals of the LSI chip, and a voltage level of one of the output bits of the shift register being different from these of other output bits of the shift register in response to a clock pulse. Each switch includes an input terminal, an output terminal and a control terminal. A number of the switches is equal to the number of the output terminals of the LSI chip, each input terminal of the switches is connected to one of the output terminals of the LSI chip, the output terminals of the switches is commonly connected to the test signal output terminal, and each control terminal of each switch is connected to one of the output bits of the shift register.